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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,559	05/27/2005	Miyuki Usui	TKI 005	7113

20374 7590 01/05/2007
KUBOVCIK & KUBOVCIK
SUITE 710
900 17TH STREET NW
WASHINGTON, DC 20006

EXAMINER

PATEL, VISHAL A

ART UNIT	PAPER NUMBER
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3673

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/536,559

Applicant(s)

USUI, MIYUKI

Examiner

Vishal Patel

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/31/06 and 10/11/05.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: _____

DETAILED ACTION

Applicant should provide proper status identifier for the claims.

Drawings

1. Figures 4-5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Election/Restrictions

Applicant's election with traverse of claims 1-4 and 7-9 in reply filed on 10/30/06 is acknowledged. The traversal is on the ground(s) that "all the figures are closely related" and because the examiner has failed to show serious burden. This is not found persuasive because the requirement was for election of species not election of invention. Species are necessarily closely related, however this fact is irrelevant to the question of whether or not restriction is proper. What is relevant is whether or not the species are patentably distinct. Further, there is no requirement that the search be burdensome. See MPEP § 808.01(a). Applicant has failed to provide evidence that the species are obvious variants or to admit on the record that this is the case.

Accordingly, the requirement is still deemed proper and is therefore made FINAL.

The examiner has shown the lack of unity in the previous office action and further more will be further emphasize in the rejection below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson (US. 2,445,090).

Thompson (figures 6 and 8) discloses a combined oil control ring consists of an oil ring body which is integrally formed of upper and lower rails (each rail 20) having outer peripheral surfaces, a web (40) which connects the upper and lower rails and includes a plurality of windows (figures 7 and 9), and a coil expander (16) which pushes the oil ring body in a direction, the coil expander being housed in an inner- peripheral groove (groove holding 16) portion of the oil ring body, projecting portions (portions in attached figure 6) which extend toward a center line in the thickness direction are formed at inner peripheral sides in the radial direction than a position where an axial distance between inner peripheries of the inner- peripheral groove portion of the said oil ring body becomes maximum (L2 in attached figure 6 and 8)

Regarding claim 2: The axial distance between inner- peripheries of the inner-peripheral groove portion of the oil ring body is smaller than the maximum distance L2, in the inner portion than the position of L2 ($L1 < L2$).

The minimum distance is L1 and the maximum distance is L2 (see attached figures 6 and 8). The minimum distance (L1) being the axial distance between inner peripheries of the inner-peripheral groove portion of the oil ring body.

Regarding claim 4: A cross-sectional shape in the radial direction of the inner peripheral groove portion of the oil ring body is formed of an arcuate surface (figure 6 and 8).

Regarding claims 7-9: The maximum widths in the axial direction of the projecting portions formed on upper and lower portions of the inner-peripheral groove portion of the oil ring body differ from each other (See attached figure 6 and 8). The minimum distance L1 and an outer diameter d of the coil expander have a relationship of $L1-d$ is less than or equal 0.2mm and greater than or equal to -0.10mm. The projection portions are partially formed on the oil ring body in a circumferential direction.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson.

Thompson discloses the claimed invention except that $(L2-L1)/L1$ is greater than or equal to 0.03 and less than or equal to 0.15. Discovering an optimum range of a result effective variable involves only routine skill in the art. In re Kulling, 895 F.2d 1147, 14 USPQ 2d 1056. Without the showing of some unexpected result. Since applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made that $(L2-L1)/L1$ is greater than or equal to 0.03 and less than or equal to 0.15 to provide mechanical expedience and as a matter of design choice.

Conclusion

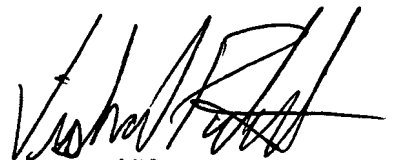
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Balsells and Freedman.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP
December 30, 2006


VISHAL PATEL
PRIMARY EXAMINER
TECHNOLOGY CENTER 3600

July 13, 1948.

J. C. THOMPSON

2,445,090

PISTON RING

Filed Jan. 9, 1947

2 Sheets-Sheet 2

